

Panasonic

Operating Instruction

Colour Television
TX-21ST15M
TC-21S15M

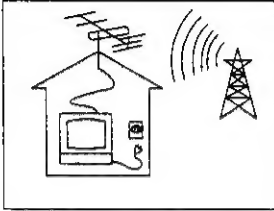
Please read the operating instructions completely before operating this set.

TQB4G0495

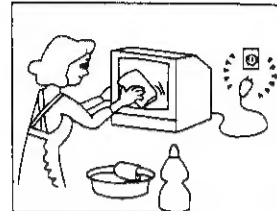
Dear Panasonic customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new colour television.

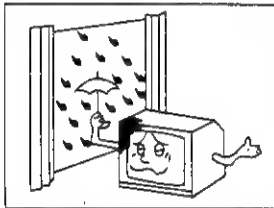
Safety Instructions



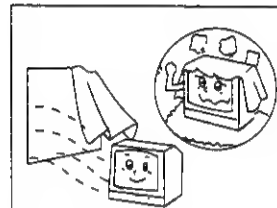
The TV set can be operated on
AC SINGLE 230V, 50Hz



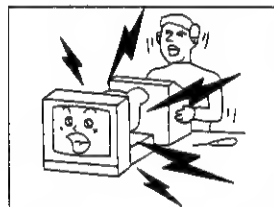
The cabinet and picture tube
can be kept in good condition
by simply wiping with a clean,
soft cloth moistened with mild
detergent and water. Do not
use solutions containing
benzol, petroleum or a
chemical cloth. For safety,
remove the plug from the wall
outlet.



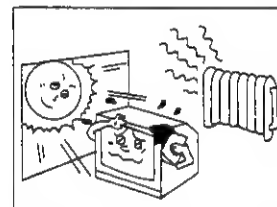
To prevent damage which may
result in fire or electrical shock,
do not expose the TV set to
rain or excessive moisture.



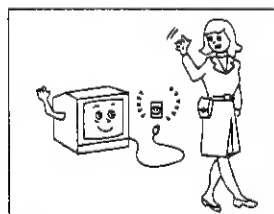
Adequate ventilation is
essential to prevent failure of
electrical components.



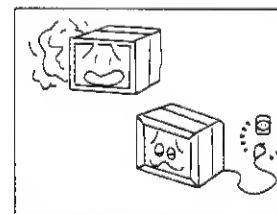
Do not remove the rear cover,
as live parts are accessible
when it is removed.



Avoid exposing the TV set to
direct sunlight and other source
of heat.

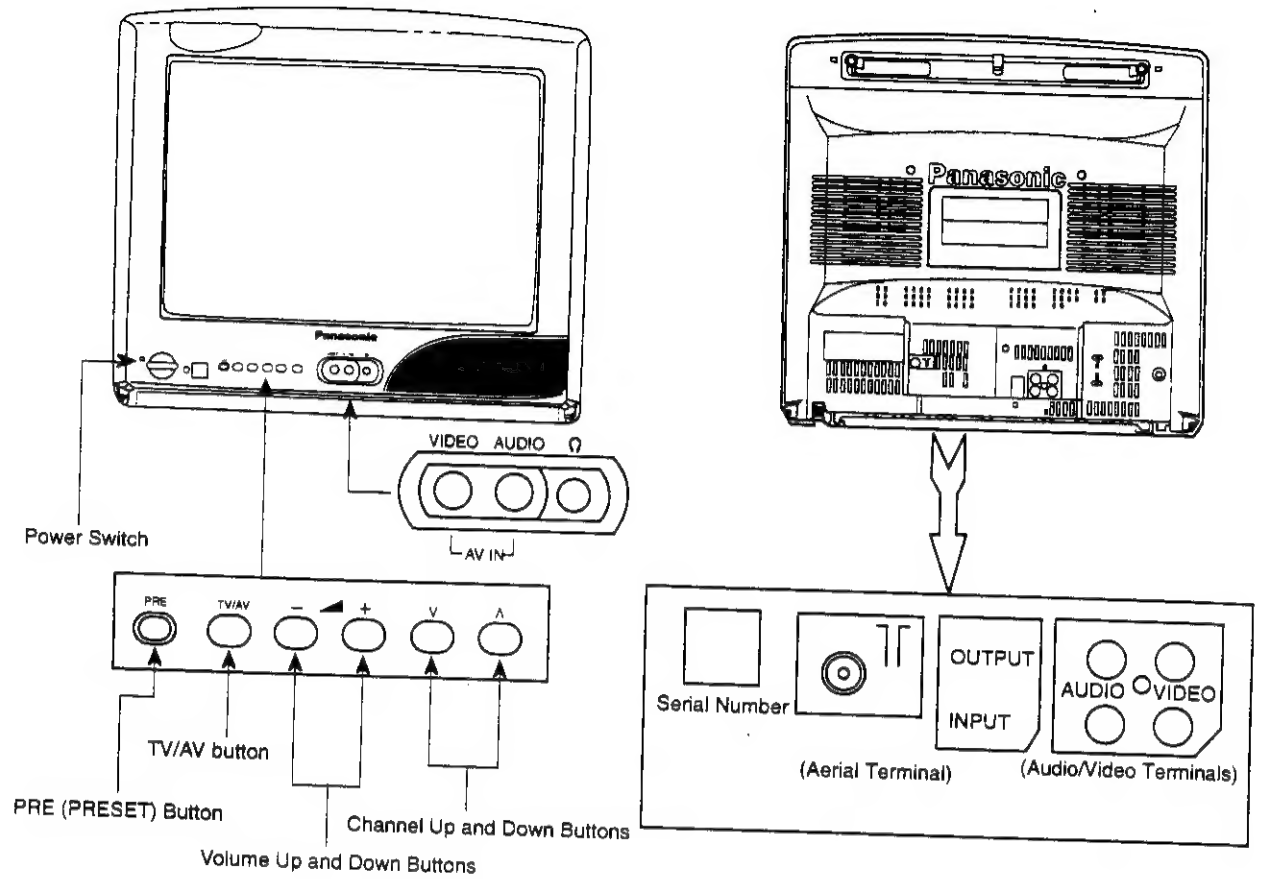


Remove the plug from the wall
outlet (Power point) when the
TV set is not used for a
prolonged period of time.



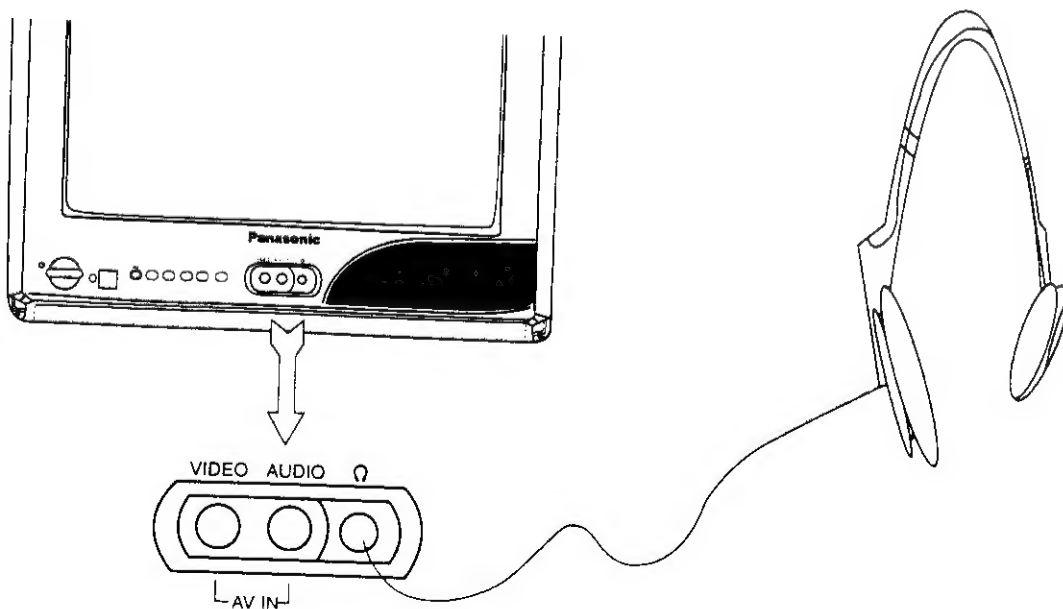
Do not use this set if abnormal
operation occurs.
EX: smoke, odd sounds or
smells, turn the power switch
off and disconnect the AC
power if you notice any unusual
operation.

Location of Control (TV)

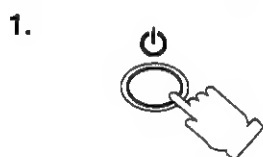
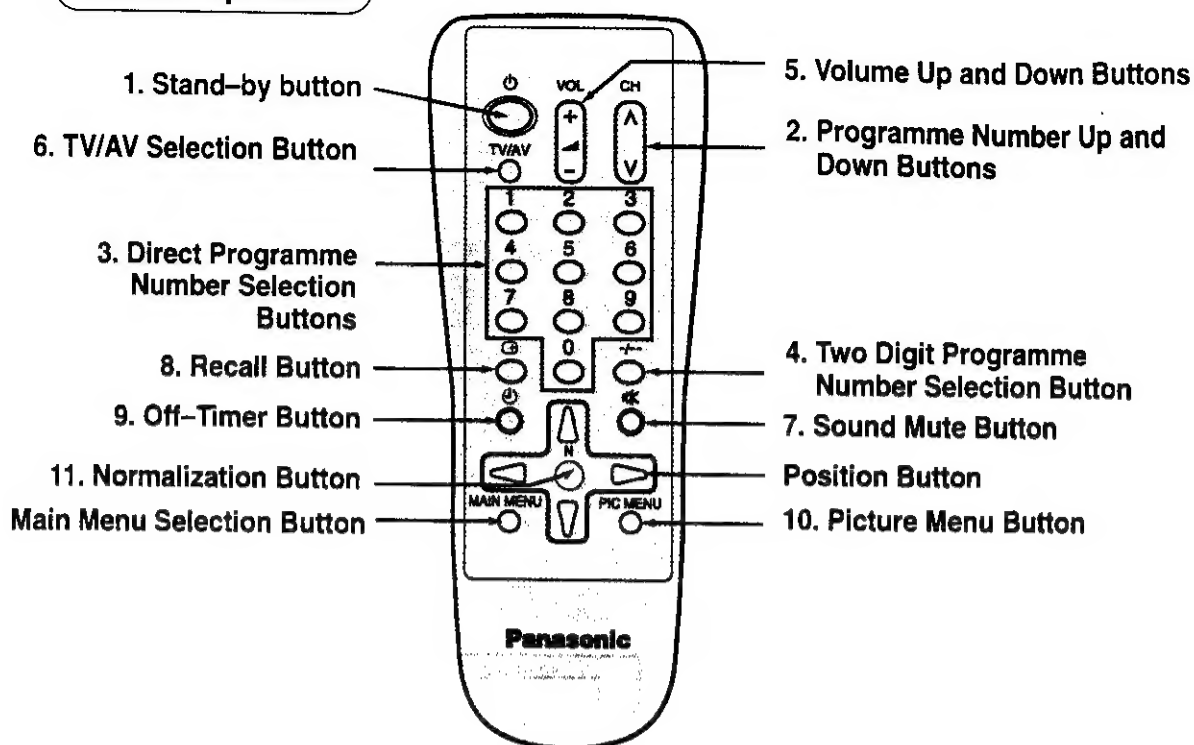


Location of Control (TV)

Plug the earphone jack as shown below:



General Operation

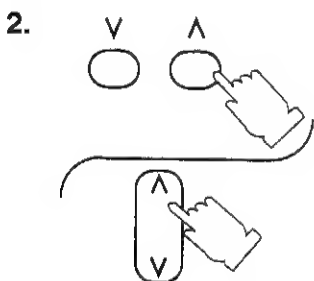


To Switch Power on/off

The TV set must be switched on at the wall outlet and at the Main power switch.
Press this button to turn the TV set ON, from stand-by mode.
Press it again to turn off.

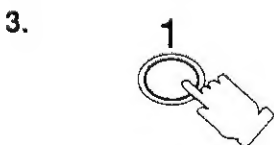
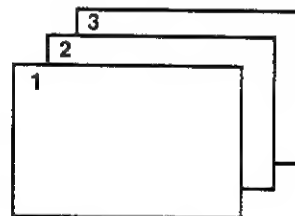
Note :

When in the stand - by condition, it is possible to turn the TV set on by pushing the Direct Programme Number Selection button (0-9) or the Programme Number Up and Down button.



Programme Number Selection

Press the programme number Up "A" or down "V" Button to select the next higher or lower programme number.



Direct Programme Number Selection

(0 - 9)

e. g. To select programme number "1", press the "1" button.





General Operation

4. 

Two Digit Programme Number Selection

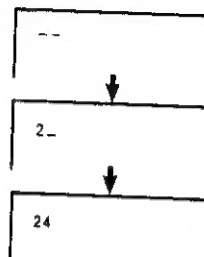
e.g. To select Programme Number "24".

Push the  button.

Push the  button.

Push the  button.

Setting range 0 ~ 99

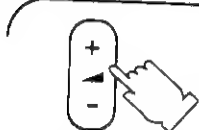


You can select a two Digit Programme Number.

5. 

Volume Adjustment

Push the Volume Up or Down button to increase or decrease the sound volume level.



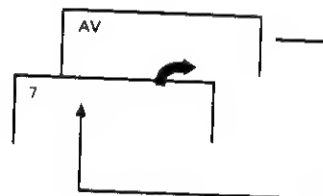
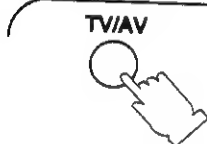
Note :

The on screen display will indicate both numerically and graphically the volume level. Numeric levels start at " 0 " for zero or no sound, and will increase up to 63 which is the maximum sound level.

6. 

TV / AV Selection

Push the " TV/AV " button to select TV and AV input signal.



7. 

Sound Mute Button

Push the this button to mute the Sound completely.

Push the button once again to restore the previous sound level, and cancel the mute.

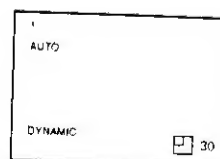


The " Mute " symbol will appear. (Colour changes to red)

8. 

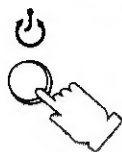
Recall Button

Push the RECALL button to display the current system status. Press this button until display is cancelled.

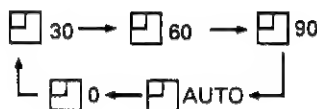


General Operation

9. Off Timer Button



The TV set may be preset to switch to stand-by after a fixed period.
By pressing "Off-Timer" button, you can select the preset time either 30, 60, or 90 minutes.



When the off-timer reaches its last 3 minutes, it starts blinking before going to stand-by condition.

Note :

Setting Off-timer to AUTO mode.

If the set is not switched off, when the TV station ends broadcasting, it will automatically go to the stand-by condition after 5 minutes. This AUTO mode will not operate when the TV receiver is in AV mode.

How to cancel the OFF-timer setting:

1. Set the preset time condition to "0" mode by pressing the Off - timer button.
2. Turning the TV set off.

10. Picture Menu

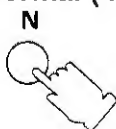
PIC MENU



By pressing the PICTURE MENU button, you can sequentially select the Picture menus as shown below:

On-screen	Function
DYNAMIC	For watching in brighter environments. This menu selects a higher than normal level of brightness and contrast.
STANDARD	For watching in normal (evening) environments. This menu selects normal level of brightness and contrast.
SOFT	For watching in dark environments. This menu selects reduced level of brightness and contrast.










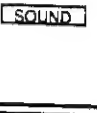


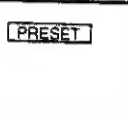





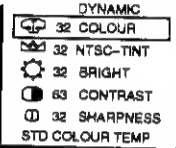
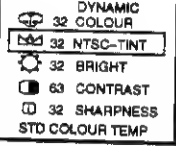
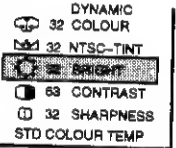
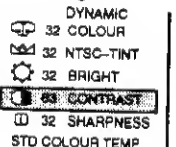


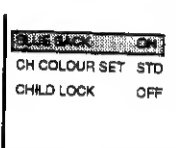
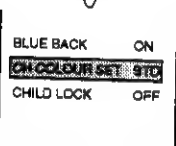



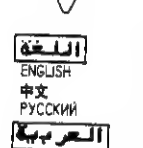


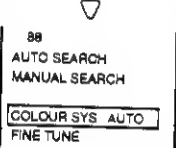
11. Normal (N) Button



This button can be used for setting the Colour, Brightness, Contrast, Sharpness, Tone and Colour Temp. When this button is pressed, all functions setting are reset to the factory preset level.

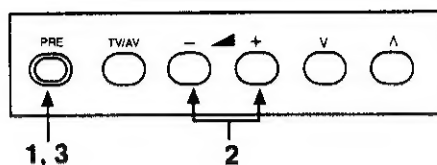
Flow Chart of Main Menu

When the " MAIN MENU " button is pushed at the main menu screen, the screen display will return to the normal viewing condition. When the " MAIN MENU " button is pushed at each MENU screen (Picture, Sound, Features, Language, Preset), the screen display will return to the Main Menu screen.

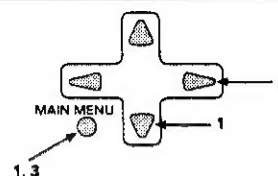
Push	MAIN MENU 				
Select	 				
Symbol Mark					
On-Screen Indication					
Push					
On-Screen Indication (example)	    		  	  	  

Tuning Procedure

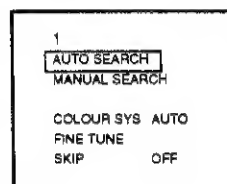
Automatic Search



OR



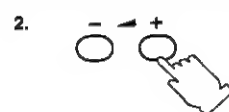
1. Press the "PRE" (PRESET) button, setting the Automatic search mode.



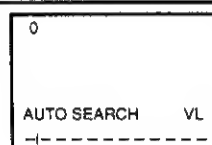
Channel Number
Automatic search
condition.



- Press the "MAIN MENU" and "Position" buttons, until "AUTO SEARCH" function is selected.



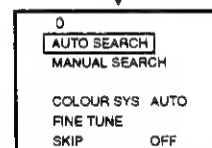
2. Press the Volume Up "+" button.



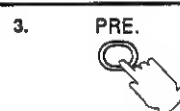
Search start.



- Press the Position Right button.



The best tuning position is
automatically memorized.



3. Press the "PRE" (PRESET) button 5 times.



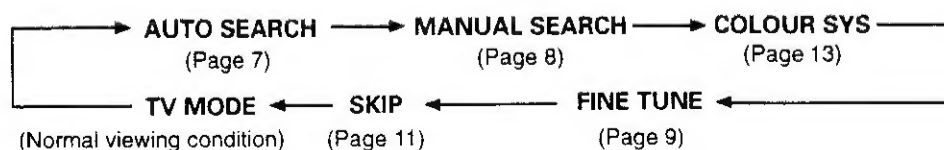
- After all stations are tuned, press the "MAIN MENU" button twice.



This returns the set to the
normal viewing condition.

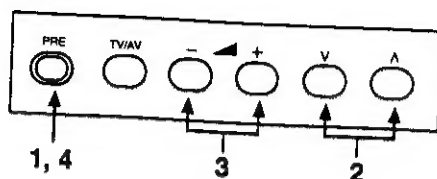
Helpful Hints

- If a clear picture with correct colours cannot be obtained when a broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 13.
- After the Automatic Search operation is finished, press the Channel Number "Up" button to confirm the tuning condition for each Channel Number. If some Channel Numbers are unused, it is possible to skip such Channel Numbers. Please refer to the Channel Number Skip operation on page 11.
- Repeated pressing of the "PRE." (PRESET) button changes the Preset Menu as follows :

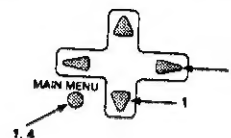


Tuning Procedure

Manual Search



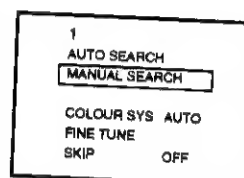
OR



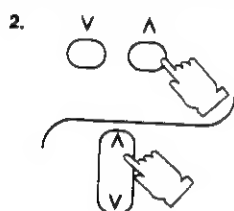
1. **PRE.**
Press the "PRE" (PRESET) button twice, setting the Manual Search mode.



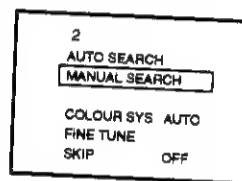
Press the "MAIN MENU" and "Position" buttons, until "MANUAL SEARCH" is selected.



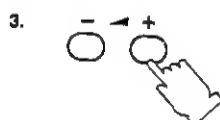
Channel Number
Manual search condition.



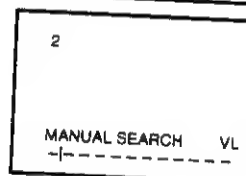
2. Press either the Channel Up or Down button.



Select the desired Channel Number.



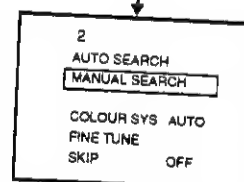
3. Press the Volume Up "+" or Down "-" button.
Volume "+" : Next higher Channel
Volume "-" : Next lower Channel



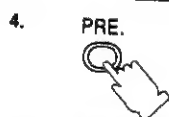
Search Start.



Press the Position Left or Right button.
Position left : Next lower Channel.
Position right : Next higher Channel.



The best tuning position is automatically memorized.



4. **PRE.**
Press the "PRE" (PRESET) button 4 times.

MAIN MENU

Press the "MAIN MENU" button twice.



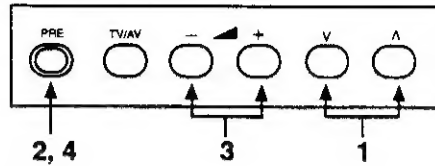
This returns the set to the normal viewing condition.

Helpful Hints

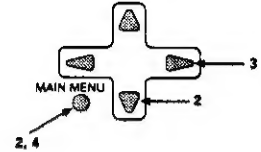
1. If a clear picture with correct colours cannot be obtained when a broadcast or AV signal is received, refer to the "Colour System Selection" operation on page 13.
2. After the Manual Search operation is finished, press the Channel Number "Up" button to confirm the tuning condition for each Channel Number. If some Channel Numbers are unused, it is possible to skip such Channel Numbers. Please refer to the Channel Number Skip operation on page 11.

Tuning Procedure

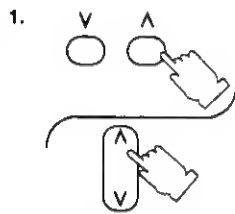
Fine Tune



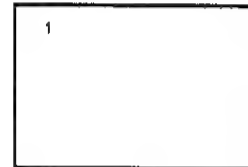
OR



Under normal reception condition, this function is not used. However, in areas of poor reception or constant interference, a slight adjustment on the fine tuning can improve the picture and sound quality.



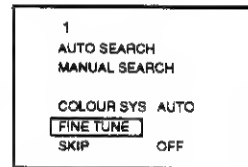
1. Select the channel which you want to try to improve, using the Channel Up or Down buttons.



Select the desired Channel Number.



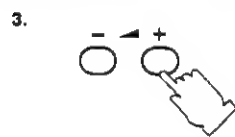
2. Press the "PRE." (PRESET) buttons 4 times, setting the Preset menu to "Fine Tune".



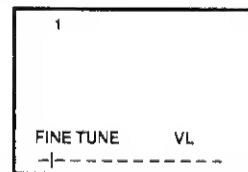
Fine Tune condition.



Press the "MAIN MENU" and "Position" buttons, until "FINE TUNE" is selected.



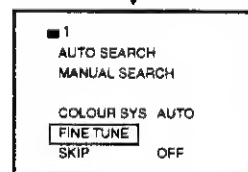
3. Press the Volume Up "+" or Down "-" button until the picture is received.



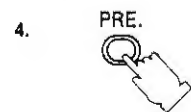
Fine Tune Start.



Press the Position Left or Right button until the picture is received.

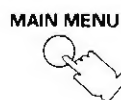


The AFC (Automatic Frequency Control) function is deactivated. The "■" symbol appears to the left of the Channel Number.



4. Press the "PRE" (PRESET) button 2 times.

This returns the set to the normal viewing condition.

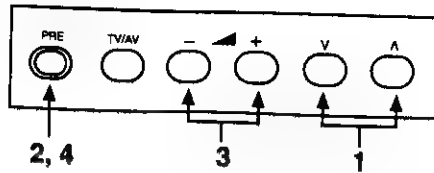


After all stations are tuned, press the "MAIN MENU" button twice.

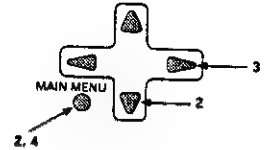


Tuning Procedure

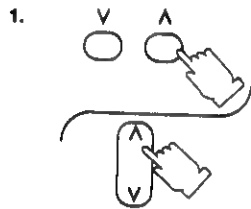
How to cancel the Fine Tuning



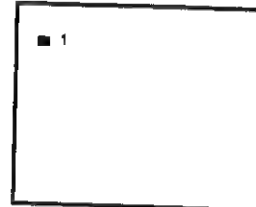
OR



Cancelling previously adjusted (manually) fine tuning, means re – activating the AFC (Automatic Frequency Control) Function, also known as AFT (Automatic Fine Tuning). Re – activating the Automatic Fine Tuning means albarning the set to automatically tune optimum tuning position, for that Channel Number.



1. Select the "AFC OFF" Channel Number which you want to return to Automatic Frequency Control (Cancel the manual fine tuning).



"AFC OFF" Channel Numbers are indicated to you by the "■" symbol to the left of the Channel Number.



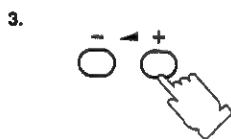
2. Press the "PRE." (PRESET) buttons 2 times, setting the Preset Menu to "MANUAL SEARCH".



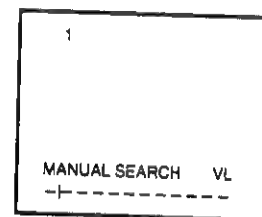
Manual Search condition.



Press the "MAIN MENU" and "Position" buttons, until the Preset Menu to "MANUAL SEARCH".



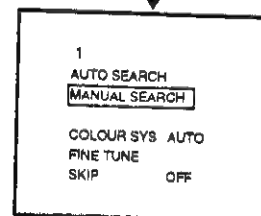
3. Press the Volume Up "+" or Down "-" button briefly.



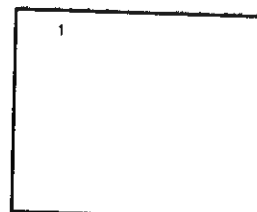
The best tuning position is automatically memorized.



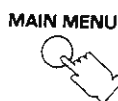
Press the Position Left or Right button briefly.



4. Press the "PRE" (PRESET) button 4 times.



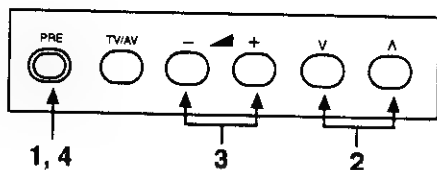
This returns the set to the normal viewing condition.



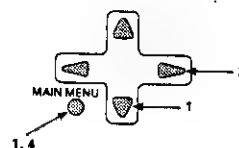
Press the "MAIN MENU" button twice.

Tuning Procedure

Programme Number Skip

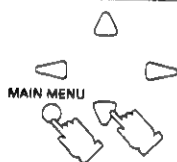
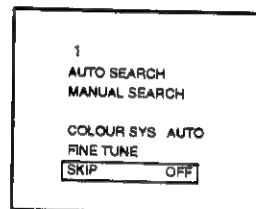


OR

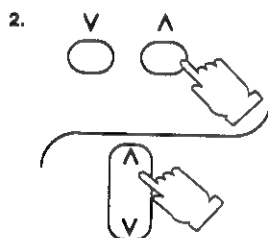


Press the "PRE." (PRESET) buttons 5 times, setting the Preset Menu to "SKIP".

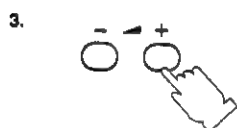
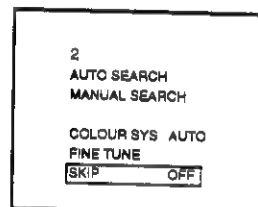
Channel Skip condition.



Press the "MAIN MENU" and "Position" buttons, until "SKIP" is selected.

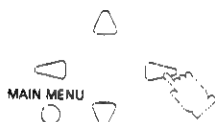
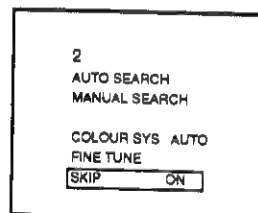


Select a Programme Number you want to skip, by pushing the Channel number Up or Down buttons.

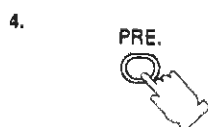


Press the Volume Up "+" or Down "-" button.

The displayed "OFF" condition changes to "ON".



Press the Position Left or Right button.



Press the "PRE" button once.



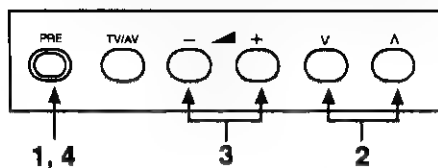
Press the "MAIN MENU" button twice.



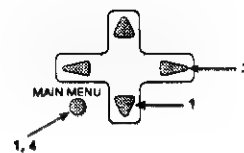
This returns the set to the normal viewing condition.


Tuning Procedure

How to Cancel the Skip Function.

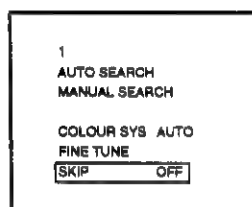


OR

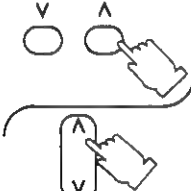


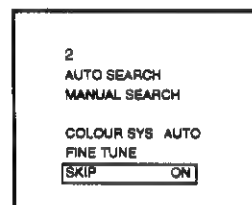
1.  Press the "PRE." (PRESET) buttons 5 times, setting the Preset Menu to "SKIP".


Channel Skip condition.



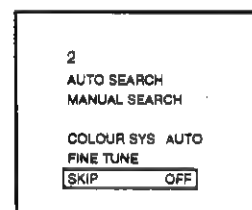
- Press the "MAIN MENU" and "Position" buttons, until the Preset Menu to "SKIP".

2.  Select the skipped Programme Number, by pressing the Channel Number Up or Down buttons.




3.  Press the Volume Up "+" or Down "-" button.

The displayed "ON" condition changes to "OFF".

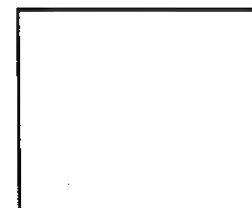


- Press the Position Left or Right button.

Repeat step 2 and 3, if you wish to cancel the Skip function on any other programme number.

4.  After the Skip Cancel operation is completed, press the "PRE" button once.

This returns the set to the normal viewing condition.



MAIN MENU

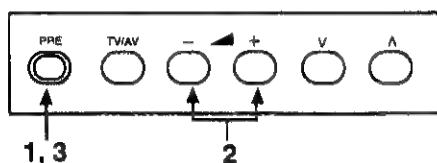


- After the Skip Cancel Operation is completed, press the "MAIN MENU" button twice.

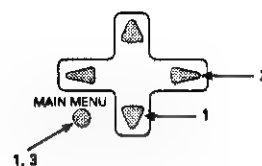
Tuning Procedure

Colour System Selection

Use this function if a clear picture with weak colour is obtained when a Broadcast or AV signal is received.



OR



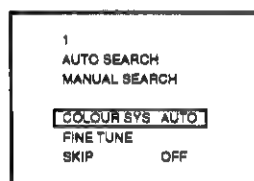
1.

PRE.



Press the "PRE." (PRESET) button, until "COLOUR SYS" is selected.

Colour System condition.



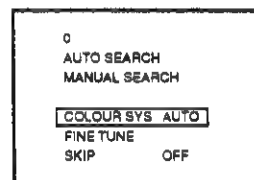
Press the "MAIN MENU" and "Position" buttons, until "COLOUR SYS" is selected.

2.

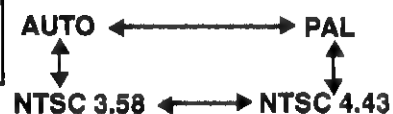
- +



Press the Volume Up "+" or Down button, "-" repeatedly until the optimum image is produced.



The Colour system will change as shown:



Press the Position Left or Right button repeatedly until the optimum image is obtained.

3.

PRE.



Press the "PRE" (PRESET) button 3 times.

This returns the set to the normal viewing condition.

This selected Colour System is automatically memorized.

MAIN MENU

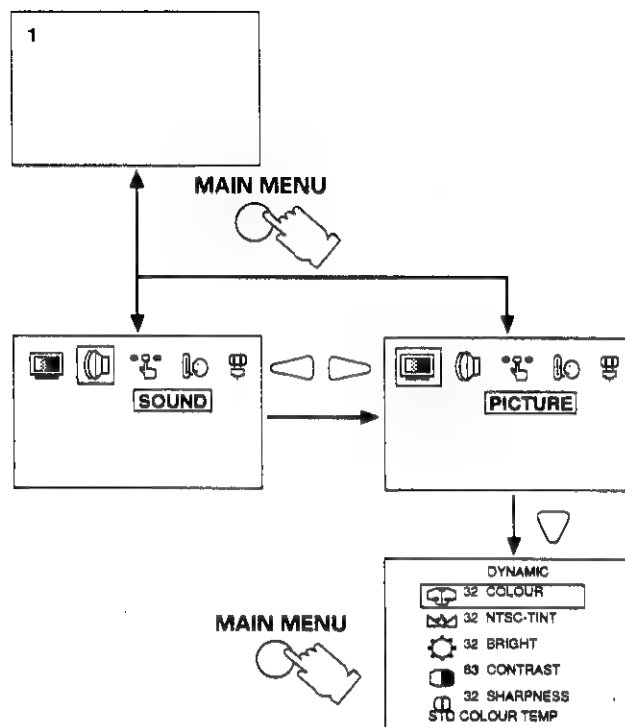


Press the "MAIN MENU" button twice.

Advanced Remote Control Operation

Picture Menu Operation

Method



Picture Menu

Push	Item	Effect	Indicator
▽ △ Select	COLOUR	Less More	32 COLOUR
▽ △ Select	NTSC-TINT	Greenish Reddish	32 NTSC-TINT
▽ △ Select	BRIGHT	Darker Brighter	32 BRIGHT
▽ △ Select	CONTRAST	Less More	63 CONTRAST
▽ △ Select	SHARPNESS	Less More	32 SHARPNESS
▽ △ Select	COLOUR TEMP	STD ← → WARM	COLOUR TEMP

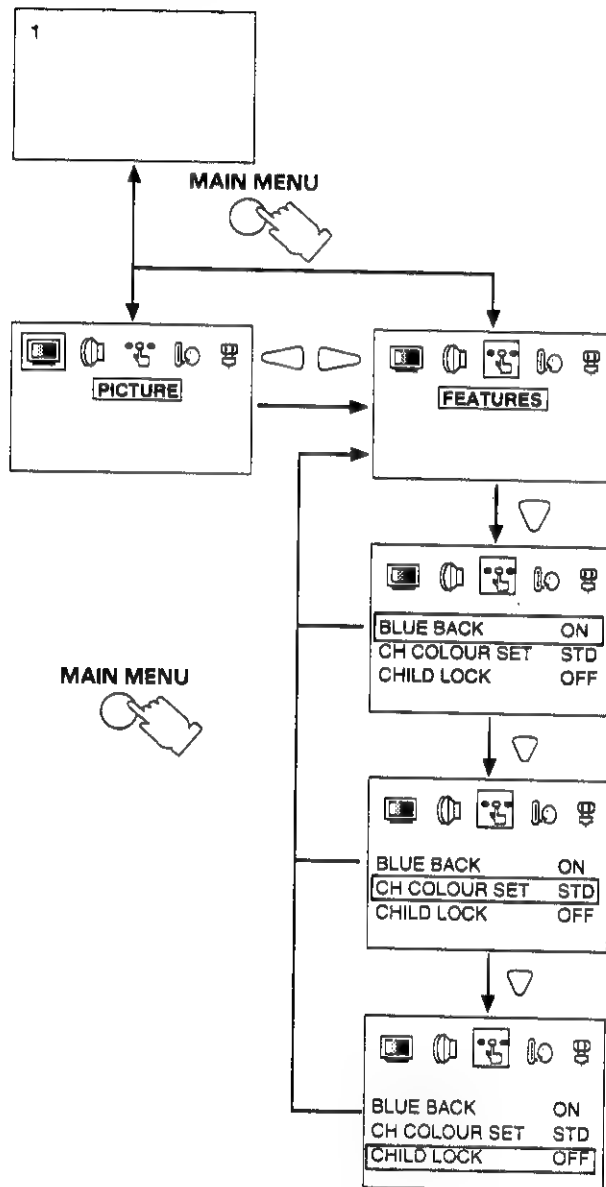
Helpful Hint

1. By pushing the Normal "N" button on the Remote control while the Picture menu is displayed, the setting of the selected function will be return to factory setting level.

Advanced Remote Control Operation

FEATURES Menu Operation

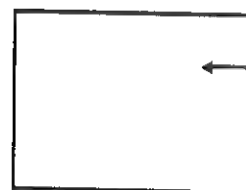
Method



BLUE BACK Mode

When no picture signal is received, or the signal is weak, the screen reverts to a blue background colour and the sound is muted.

Disable this feature to continue watching very weak signals.



Blue background colour if no input picture signal or input signal is weak.

Note :

If BLUE BACK Mode is set on while a VCR signal is being viewed, selecting CUE or REVIEW may cause the screen to revert to the blue background colour. Disable this feature to view correctly.

CH (Channel) COLOUR SET mode.

Colour density varying between broadcast channels can be adjusted to three levels for each reception channel as follows:



CHILD LOCK mode.

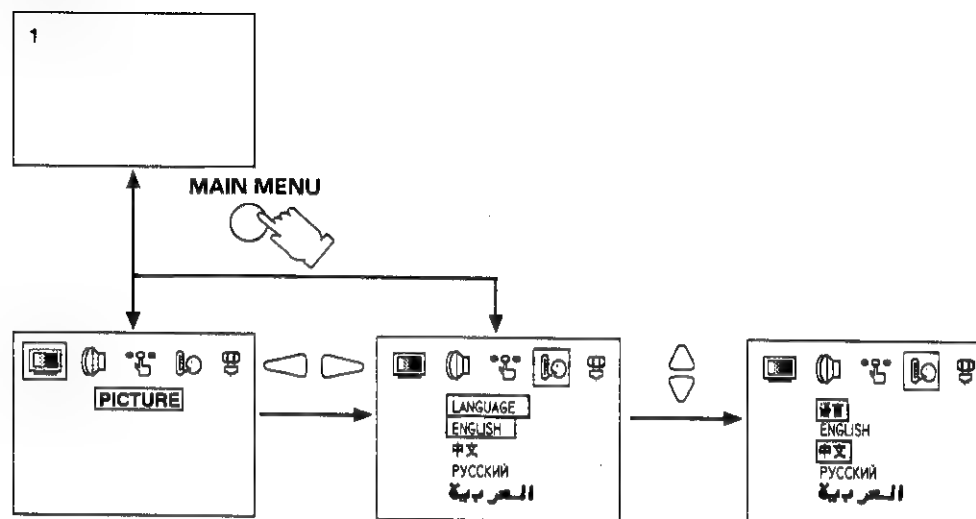
To child lock any channel, press the position left or right button.

- 1) When channel is "LOCK", sound is muted and screen becomes blue colour.
- 2) If any of the channels is CHILD LOCK, then preset key at any panel will not work. If preset key (Panel) is pressed, message "CHILD LOCK ON" will appear.
- 3) Main power ON in child locked channel will display "CHILD LOCK ON" on screen to remind user that the Child lock is On and is in Child locked channel.
- 4) Each channel has its own memory for channels to be child locked.

Advanced Remote Control Operation

Language Menu Operation

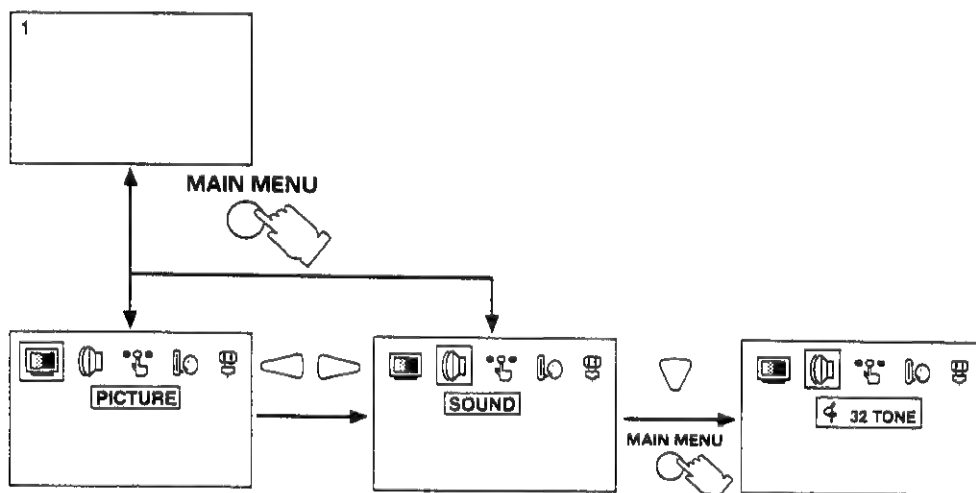
Method






Press the "Position Up or Down" button to select desire language.

Sound Menu Operation

Method



Sound Menu

Push	Item	Effect	Indicator
 Select	TONE	 Less More	

Advanced Remote Control Operation (For Teletext model only)

Fastext

- Teletext features may vary depending on the Broadcasting companies and is only available if the channel selected is transmitting teletext.
- When in the teletext mode, the volume may still be altered to the desired listening level.

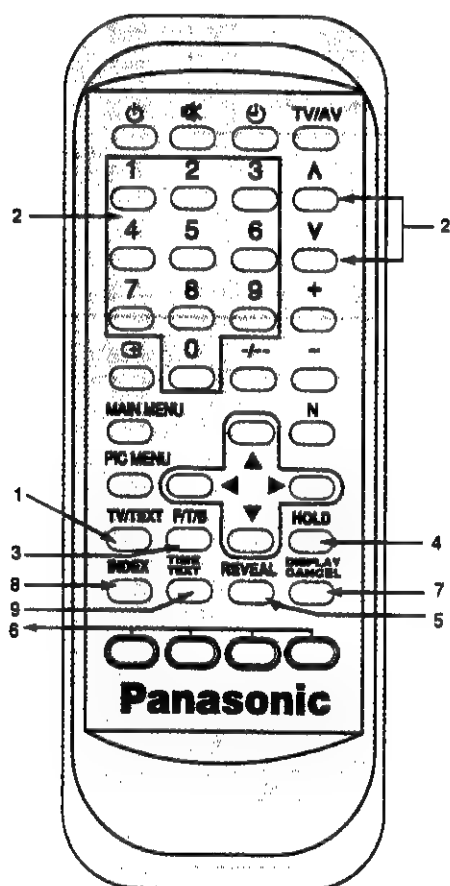
What is Fastext


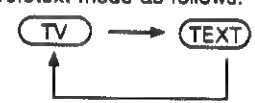
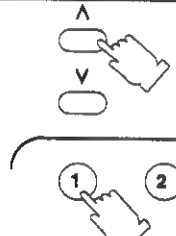



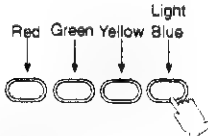

In FASTEXT mode, four different coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, push the appropriately coloured button. This facility enables fast access to information of the subjects shown.

What are the advantages

- Page selection at the touch of a Coloured-coded button.
- Easy to use step by step selected of the topical subject.
- Reduction of waiting time.
- Page status line at the bottom of screen so you always know which button will take you to the desired information.

Teletext Operation



- TV/TEXT**

TV/Teletext mode
 By pushing the TV/TEXT button, to change the TV/Teletext mode as follows:

- Page Selection**
 Pages can be selected in two ways:
 a) Push the Up/Down Buttons to increase or decrease the page number by one.
 b) By entering the page number, using 0 ~ 9 on the remote control.

- F/T/B**

Full/Top/Bottom
 Push to expand the Top of the page.
 Push again to expand the Bottom half.
 Push again to return to normal (Full) size.
- HOLD**

Hold
 Push to hold the current page.
 Push again to cancel the hold.
- REVEAL**

Reveal
 Push to reveal hidden words.
 e.g. quiz page answer.
 Push again to hide.
- Colour-coded buttons**
 In Fastext mode these correspond to the differently coloured subjects.

- DISPLAY CANCEL**

Display Cancel
 Push the "DISPLAY CANCEL" button to view the normal TV programme.
 When the desired sub-page is received, the "TEXT" message appears at the top left of the screen.

Teletext Operation

8. INDEX



Index

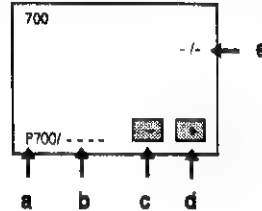
Push INDEX to return to the main index page.

9. TIME TEXT



TIME TEXT

The Required Teletext page must be selected. When the "TIME TEXT" button is pressed, the on-screen will be changed as follows:



a - Selected Page Number

b - Selected Sub - page Number

c - Sub - page Number Down

d - Sub - page Number Up

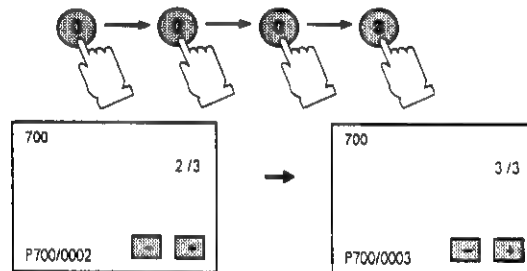
e - Sub - page Number

If the selected page number contain sub-page number, the required sub - page number can be select by:

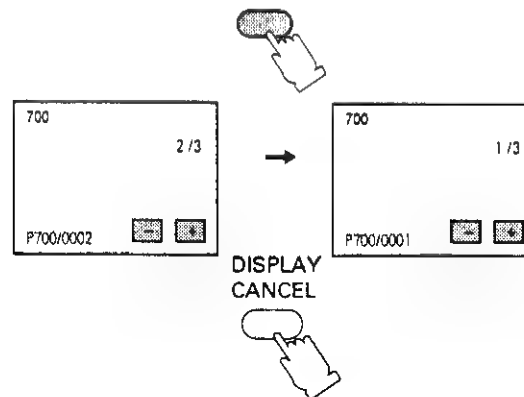
1. Press the Sub - page Number Up (green colour button)
2. Press the Sub - page Number Down (red colour button)
3. Press the Direct Programme Number Buttons, or
4. Programme Number Up or Down Buttons

The Sub - page 2 to sub - page 3 by pressing the Direct Programme Number buttons.

e.g. To change sub - page 2 to sub - page 3 by pressing the Direct Programme Number buttons.



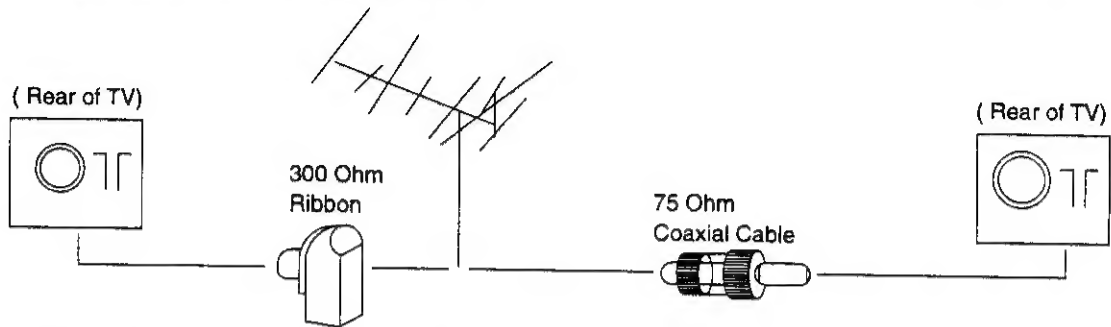
e.g. To change sub - page 2 to sub - page 1 by pressing the Sub - page Number Down Button (Red button).



Press DISPLAY CANCEL to view a normal TV programme.

Antenna Connection

To obtain the best quality picture and sound, plug the connectors (300 Ohm Ribbon or 75 Ohm Coaxial Cable) to the antenna terminal on the rear of TV set.



Connections (Audio Input and Video Input)

To watch the VCR picture :

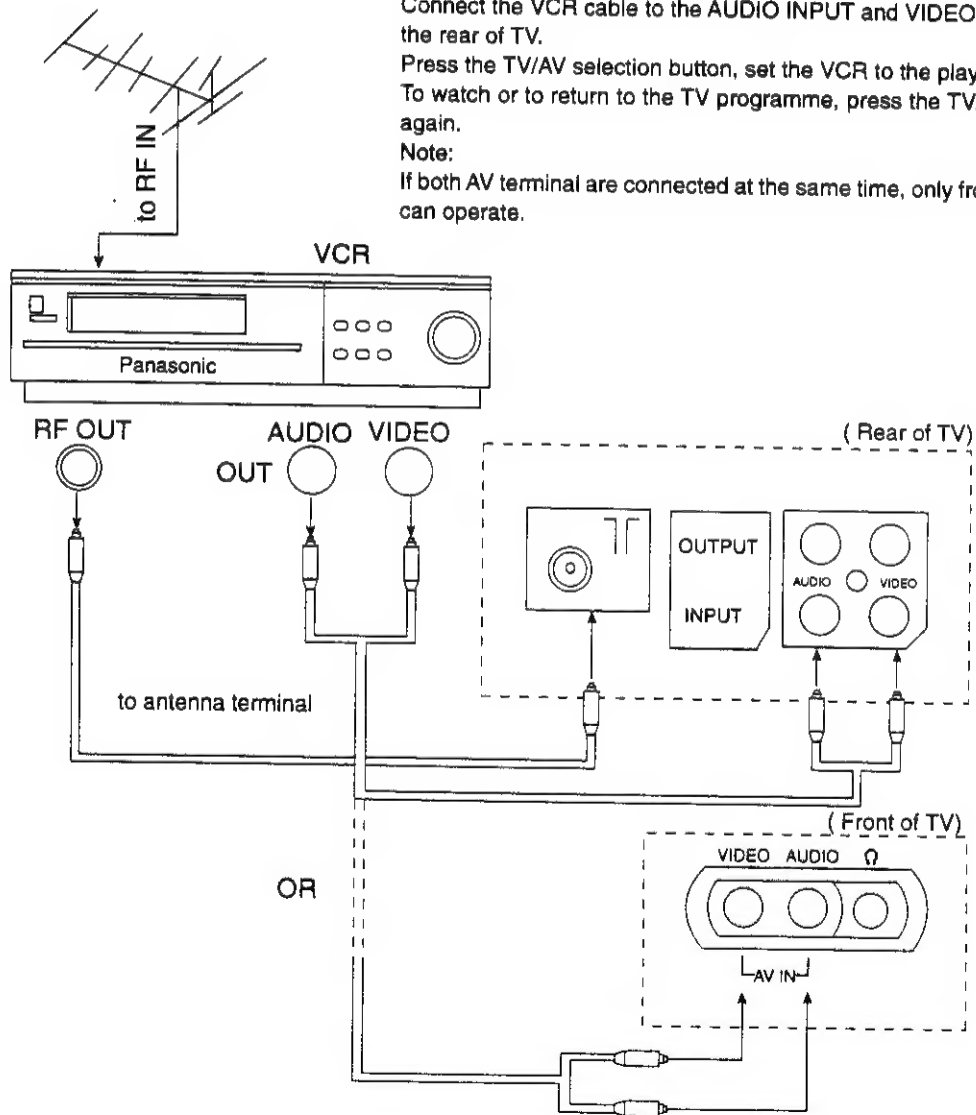
Connect the VCR cable to the AUDIO INPUT and VIDEO INPUT terminals at the rear of TV.

Press the TV/AV selection button, set the VCR to the playback mode.

To watch or to return to the TV programme, press the TV/AV selection button again.

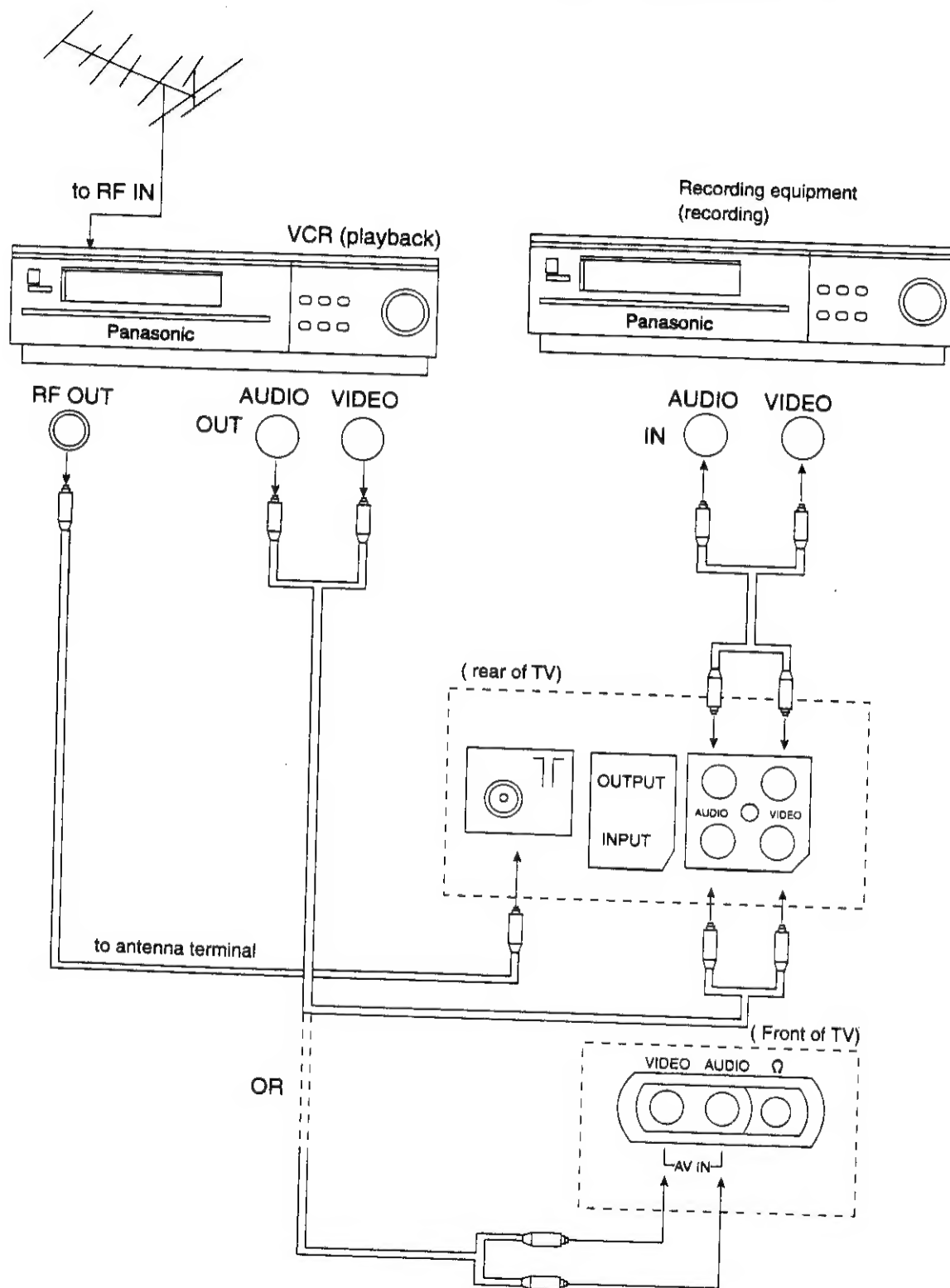
Note:

If both AV terminal are connected at the same time, only front AV input terminal can operate.























Recording

Follow the connection shown below when you want to copy a programme from another tape (VCR).



Troubleshooting

Before calling for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	Sound	
 Snowy Picture	 Noisy Sound	Aerial Location, direction Connection
 Multiple Image	 Normal Sound	Aerial Location, direction Connection
 Interference	 Noisy Sound	Electrical Appliances Cars / Motorcycles Fluorescent Lamps
 Normal Picture	 No Sound	Volume (Check whether the mute function has been activated on the Remote Control.)
 No Picture	 No Sound	Not plugged into AC outlet Not switched on Contrast and Brightness / Volume Setting (Check by pushing the Power Switch or Stand-by Button on the Remote Control.)
 No Colour	 Normal Sound	Colour Control
 Scrambled	 Weak Sound	Re-tune Channels
 Colour Patches	 Normal Sound	Magnetic interference from unshielded equipment. Receiver moved while "ON"
   No Colour Rolling Picture H-Line	 Noisy Sound	System Button

Specifications

Power Source : AC SINGLE 230V, 50Hz

Power Consumption : 92 W

Tuning System : Voltage synthesizer

Auto search tuning 100 position

Picture Tube : 51 cm, measured diagonally, 90° deflection

Audio Output : 3 W

Remote Control Transmitter : EUR 501380 (TC-21S15M)
EUR 644666 (TX-21ST15M)

Battery : R6 (AA) x 2

Dimension (W x D x H) : 518 x 477.7 x 477 mm

Weight (Net): 20.4 Kg

Receiving Systems : 4 SYSTEMS

	SYSTEMS	FUNCTION
1.	PAL B,G	Reception of broadcast transmissions and playback from video cassette tape recorders.
2. 3.	NTSC 4.43 NTSC 3.58	Playback from special VCR only.
4.	PAL 60Hz	Playback from special Disc player and VCR only.

Receiving Channels :

VHF BAND	UHF BAND	CATV
2 – 12 PAL B 0 – 12 PAL B (AUS)	21 – 69 PAL G 28 – 69 PAL B (AUS)	S1 – S41 (HYPER)

Note :

Design and Specifications are subject to change without notice.